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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/646,247
				Filing Date	August 22, 2003
				First Named Inventor	S. Parkin
				Art Unit	2811 <i>2812</i>
				Examiner Name	Unassigned
Sheet	1	of	5	Attorney Docket Number	ARC920030071US1

U.S. PATENT DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
M P P P P P P P P P P P P P P P P P P P P		US- 5,390,061	02-14-1995	Nakatani et al.	_____
		US- 5,465,185	11-07-1995	Helm et al.	_____
		US- 5,640,343	06-17-1997	Gallagher et al.	_____
		US- 5,650,958	07-22-1997	Gallagher et al.	_____
		US- 5,729,410	03-17-1998	Fontana Jr. et al.	_____
		US- 5,764,567	06-09-1998	Parkin	_____
		US- 5,841,692	11-24-1998	Gallagher et al.	_____
		US- 5,936,293	08-10-1999	Parkin	_____
		US- 6,153,320	11-28-2000	Parkin	_____
		US- 6,226,160	05-01-2001	Gallagher et al.	_____
		US- 6,347,049	02-12-2002	Childress et al.	_____
		US- 6,359,289	03-19-2002	Parkin	_____
		US- 6,388,268	05-14-2002	Kim et al.	_____
		US- 6,392,281	05-21-2002	Tsuge	_____
		US- 6,429,497	08-06-2002	Nickel	_____
		US- 6,535,365	03-18-2003	Lukaszew et al.	_____
		US- 2002/0076940 A1	06-20-2002	Hibino	_____
		US- 2002/0097534 A1	07-25-2002	Sun et al.	_____
		US- 2002/0097535 A1	07-25-2002	Ito et al.	_____
		US- 2002/0097537 A1	07-25-2002	Shimazawa	_____

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		Filing Date	August 22, 2003
		First Named Inventor	S. Parkin
		Art Unit	2811 2822
		Examiner Name	Unassigned
		Attorney Docket Number	ARC920030071US1
Sheet	2	of	5

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
MP		US- 2002/0114112 A1	08-22-2002	Nakashio et al.	
MP		US- 2002/0159203 A1	10-31-2002	Saito et al.	
MP		US- 2002-0163764 A1	11-07-2002	Nakazawa et al.	
MP		US- 2002/0164828 A1	11-07-2002	Ishiwata et al.	
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MP		US- 2003/0035249 A1	02-20-2003	Ho et al.	
MP		US- 2003/0058685 A1	03-27-2003	Tran et al.	
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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	r ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
MP		JP 2000 322714	24-Nov-2000	Teruaki et al.	Abstract	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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Complete if Known

Application Number	10/646,247
Filing Date	August 22, 2003
First Named Inventor	S. Parkin
Group Art Unit	2811 2822
Examiner Name	Unassigned
Attorney Docket Number	ARC920030071US1

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
MP		M. Julliere, "Tunneling Between Ferromagnetic Films", Physics Letters, Vol. 54A, Number 3, September 8, 1975, pp. 225-226.	
MP		R. Meservey et al., "Spin-Polarized Electron Tunneling", Physics Reports (Review Section of Physics Letters) Vol. 238, No. 4, 1994, pp. 173-243.	
MP		J. S. Moodera et al., "Large Magnetoresistance at Room Temperature in Ferromagnetic Thin Film Tunnel Junctions", Physical Review Letters, Vol. 74, No. 16, April 17, 1995, pp. 3273-3276.	
MP		T. Miyazaki et al., "Giant magnetic tunneling effect in Fe/A12O3/Fe junction", Journal of Magnetism and Magnetic Materials, Vol. 139, 1995, pp. L231-L234.	
MP		D. J. Keavney et al., "Perpendicular conductance and magnetic coupling in epitaxial Fe/MgO/Fe(100) trilayers", J. Appl. Phys., Vol. 81, No. 2, January 15, 1997, pp. 795-798.	
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MP		E. Y. Tsybal et al., "Spin-polarized electron tunneling across a disordered insulator", Physical Review B, Vol. 58, No. 1, July 1, 1998-I, pp. 432-437.	
MP		S.S.P. Parkin et al., "Exchange-biased magnetic tunnel junctions and application to nonvolatile magnetic random access memory (invited)", J. of Applied Physics, Vol. 85, No. 8, April 15, 1999, pp. 5828-5833.	
MP		K. Aoshima et al., "Thermal deterioration mechanism of CoFeB/PdPtMn Spin valves", J. of Applied Physics, Vol. 85, No. 8, April 15, 1999, pp. 5042-5044.	
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Date

Considered

7/04

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>10/646,247</td> </tr> <tr> <td>Filing Date</td> <td>August 22, 2003</td> </tr> <tr> <td>First Named Inventor</td> <td>S. Parkin</td> </tr> <tr> <td>Group Art Unit</td> <td>2811 <i>2872</i></td> </tr> <tr> <td>Examiner Name</td> <td>Unassigned</td> </tr> <tr> <td>Attorney Docket Number</td> <td>ARC920030071US1</td> </tr> </table>		Application Number	10/646,247	Filing Date	August 22, 2003	First Named Inventor	S. Parkin	Group Art Unit	2811 <i>2872</i>	Examiner Name	Unassigned	Attorney Docket Number	ARC920030071US1
Application Number	10/646,247														
Filing Date	August 22, 2003														
First Named Inventor	S. Parkin														
Group Art Unit	2811 <i>2872</i>														
Examiner Name	Unassigned														
Attorney Docket Number	ARC920030071US1														
Sheet	4	of	5												

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
MP		X.-F. Han et al., "Fabrication of high-magnetoresistance tunnel junctions using Co75Fe25 ferromagnetic electrodes", Applied Physics Letters, Vol. 77, No. 2, July 10, 2000, pp 283-285.	
MP		H. Xi, "Annealing Effect on Exchange Bias in Ni81Fe19/Cr50Mn50 Bilayers", IEEE Transactions on Magnetism, Vol. 36, No. 5, September 2000, pp. 2644-2646.	
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MP		S. Cardoso et al., "Spin-tunnel-junction thermal stability and interface interdiffusion above 300 C", Applied Physics Letters, Vol. 76, No. 5, January 31, 2000, pp. 610-612.	
MP		M. Takiguchi et al., "Thermal degradation of spin valve multilayers caused by Mn Migration", Journal of Applied Physics, Vol. 87, No. 5, March 1, 2000, pp. 2469-2471.	
MP		H.L. Meyerheim et al., "Geometrical and Compositional Structure at Metal-Oxide Interfaces: MgO on Fe(001)", Physical Review Letters, Vol. 87, No. 7, August 13, 2001, pp. 076102-1 through 076102-4.	
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MP		W. Wulfskel et al., "Single-crystal magnetotunnel junctions", Applied Physics Letters, Vol. 78, No. 4, Jan. 22, 2001, pp. 509-511.	
MP		W. H. Butler et al., "Spin-dependent tunneling conductance of Fe/MgO/Fe sandwiches", Physical Review B, Vol. 63, Jan. 8, 2001, pp. 054416-1 through 054416-12.	
MP		Y. Kim et al., "Magnetoresistance and interlayer diffusion in PtMn spin valves upon postdeposition annealing", J. of Applied Physics, Vol. 89, No. 11, June 1, 2001, pp. 6907-6909.	
MP		S. Yuasa et al., "Spin-Polarized Resonant Tunneling in Magnetic Tunnel Junctions", Science, Vol. 297, July 12, 2002, pp. 234-237.	

Examiner Signature <i>[Signature]</i>	Date Considered <i>7/04</i>
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		Filing Date	August 22, 2003
		First Named Inventor	S. Parkin
		Group Art Unit	2811 7827
		Examiner Name	Unassigned
		Attorney Docket Number	ARC920030071US1
Sheet	5	of	5

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MP		E. Popova et al., "Epitaxial MgO layer for low-resistance and coupling-free magnetic tunnel junctions", Applied Physics Letters, Vol. 81, No. 6, August 5, 2002, pp. 1035-1037.	
MP		M. Tsunoda et al., "60% magnetoresistance at room temperature in Co-Fe/Al-O/Co-Fe tunnel junctions oxidized with Kr-O ₂ plasma", Appl. Phys. Letters", Vol. 80, No. 17, April 29, 2002, pp. 3135-3137.	
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MP		S. Mitani et al., "Fe/MgO/FeCo(100) epitaxial magnetic tunnel junctions prepared by using in situ plasma oxidation", Journal of Applied Physics, Vol. 93, No. 10, May 15, 2003, pp. 8041-8043.	
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